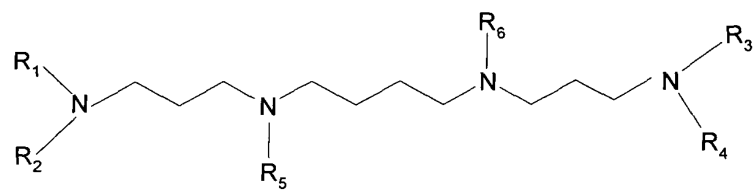
Int'l. App. No.: PCT/GB00[illegible]64
Int'l. Filing Date: 16 June 2000

In the Claims:

Please delete claim 32.
Please amend claims 1, 3-31.

1. (Amended) A spermine:peptide-based surfactant compound having the general structure of formula (I):



(I)

where R_1 and R_3 are hydrogen and R_2 and R_4, which may be the same or different, are peptide groups formed from one or more amino acids linked together, in a linear or branched manner, by amide (CONH) bonds and further linked to the spermine backbone by amide bonds, having the general formula (II):

$$-(A1)_{p1}-(A2)_{p2}-(A3)_{p3} \qquad \text{with } (A4)_{p4} \text{ attached to } (A2)_{p2} \tag{II}$$

where p1 is 0 to 5 and p2 is 1 to 5; and the values for p3 and p4, which may be the same or different, are from 0 to 5;
A1, A3 and A4, which may be the same or different, are amino acids selected from the group consisting of serine, lysine, ornithine, threonine, histidine, cysteine, arginine and tyrosine; and A2 is an amino acid selected from the group consisting of lysine, ornithine and histidine;
and R_5 and R_6 are saturated or unsaturated hydrocarbyl groups having up to 24 carbon atoms and linked to the spermine backbone by an amide or an amine (NCH_2) linkage;
or
where R_1 and R_3 are hydrogen, R_2 and R_4, which may be the same or different are saturated or unsaturated hydrocarbyl groups having up to 24 carbon atoms and linked to the spermine

backbone by amide or amine bonds, and R_5 and R_6, which may be the same or different, are peptide groups of formula (II) linked to the spermine backbone by amide bonds;
and
pharmaceutically acceptable salts thereof.

3. (Amended) A spermine:peptide-based surfactant compound according to claim 1 wherein in the peptide group of formula (II) p1 is 1 and p2, p3 and p4 are all 0.

4. (Amended) A spermine:peptide-based surfactant compound according to claim 1 wherein in the peptide group of formula (II) p1 and p2 are both 1 and p3 and p4 are both 0.

5. (Amended) A spermine:peptide-based surfactant compound according to claim 1 wherein in the peptide group of formula (II) p1 is 0 and p2, p3 and p4 are all 1.

6. (Amended) A spermine:peptide-based surfactant compound according to claim 1 wherein in the peptide group of formula (II) p1 and p3 are 0, p2 is 1 and p4 is 2.

7. (Amended) A spermine:peptide-based surfactant compound according to claim 1 wherein the A1 is serine.

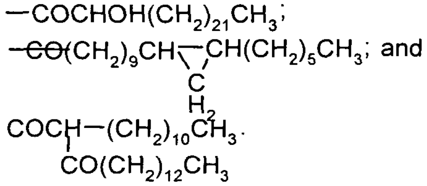
8. (Amended) A spermine:peptide-based surfactant compound according to claim 1 wherein the A2 is lysine.

9. (Amended) A spermine:peptide-based surfactant compound according to claim 1 wherein the hydrocarbyl group is selected from the group consisting of:

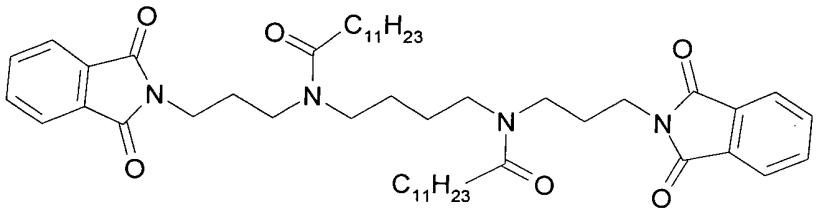
$-(CH_2)_{11}CH_3$;
$-(CH_2)_{13}CH_3$;
$-(CH_2)_{15}CH_3$;
$-(CH_2)_{17}CH_3$;
$-(CH_2)_{19}CH_3$;
$-(CH_2)_{23}CH_3$;
$-(CH_2)_8CH{=}CH(CH_2)_5CH_3$;
$-(CH_2)_8CH{=}CH(CH_2)_7CH_3$;
$-(CH_2)_8CH{=}CHCH_2CH{=}CH(CH_2)_4CH_3$;
$-(CH_2)_8(CH{=}CHCH_2)_3CH_3$;
$-(CH_2)_4CH{=}CH(CH_2CH{=}CH)_3(CH_2)_4CH_3$;
$-(CH_2)_8CH{=}CH(CH_2)_5CH_3$ Trans;
$-(CH_2)_8CH{=}CH(CH_2)_7CH_3$ Trans; and
$-(CH_2)_9CHCH_3(CH_2)_7CH_3$.

10. (Amended) A spermine:peptide-based surfactant compound according to claim 1 wherein the hydrocarbyl group is selected from the group consisting of:

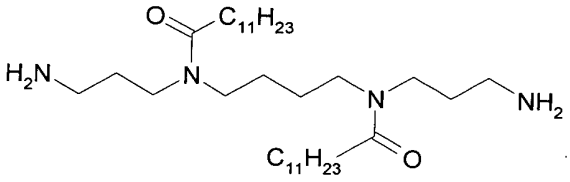
$-CO(CH_2)_{10}CH_3$;
$-CO(CH_2)_{12}CH_3$;
$-CO(CH_2)_{14}CH_3$;
$-CO(CH_2)_{16}CH_3$;
$-CO(CH_2)_{18}CH_3$;
$-CO(CH_2)_{22}CH_3$;
$-CO(CH_2)_7CH{=}CH(CH_2)_5CH_3$;
$-CO(CH_2)_7CH{=}CH(CH_2)_7CH_3$;
$-CO(CH_2)_7CH{=}CHCH_2CH{=}CH(CH_2)_4CH_3$;
$-CO(CH_2)_7(CH{=}CHCH_2)_3CH_3$;
$-CO(CH_2)_3CH{=}CH(CH_2CH{=}CH)_3(CH_2)_4CH_3$;
$-CO(CH_2)_7CH{=}CH(CH_2)_5CH_3$ Trans;
$-CO(CH_2)_7CH{=}CH(CH_2)_7CH_3$ Trans;
$-CO(CH_2)_8CHCH_3(CH_2)_7CH_3$;
$-COCHOH(CH_2)_{21}CH_3$;



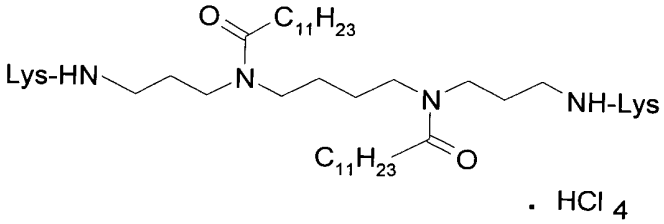
11. (Amended) The compound of claim 1 having the formula:



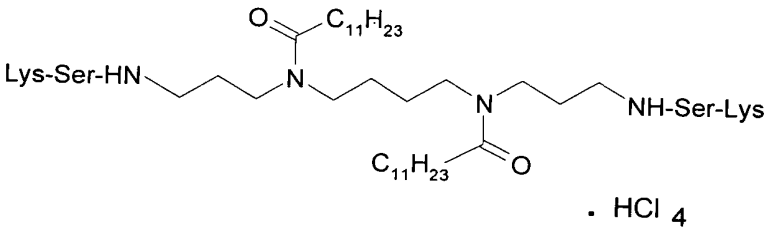
12. (Amended) The compound of claim 1 having the formula:



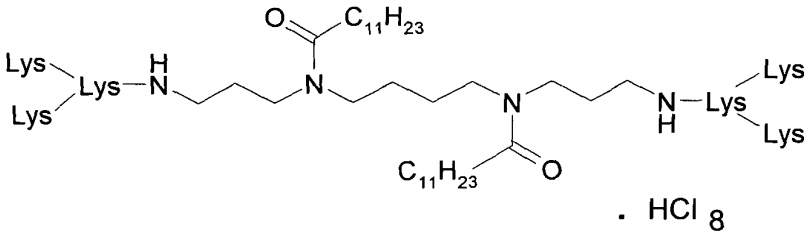
13. (Amended) The compound of claim 1 having the formula:



14. (Amended) The compound of claim 1 having the formula:

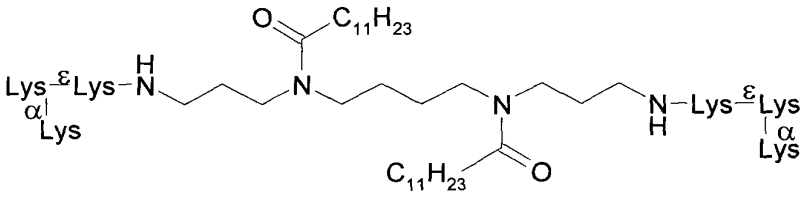


15. (Amended) The compound of claim 1 having the formula:



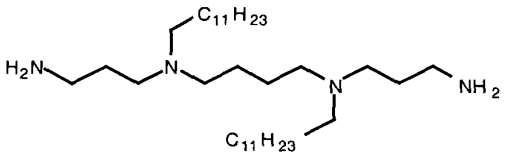
. HCl 8

16. (Amended) The compound of claim 1 having the formula:

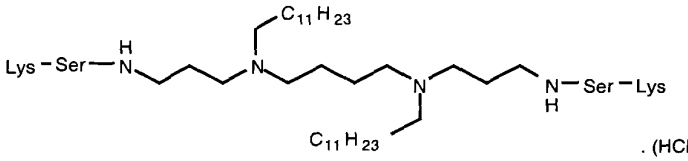


. HCl 8

17. (Amended) The compound of claim 1 having the formula:



18. (Amended) The compound of claim 1 having the formula:



. (HCl) 6

19. (Amended) A method of introducing DNA or RNA polynucleotides or analogs thereof into a eukaryotic or prokaryotic cell *in vivo* or *in vitro* comprising contacting the cell with the compound of claim 1 and a DNA or RNA polynucleotide or analog thereof.

20. (Amended) The method of claim 19 further comprising contacting the cell with one or more supplements selected from the group consisting of:
(i) a neutral carrier; and
(ii) a complexing reagent.

21. (Amended) The method of claim 20 wherein the neutral carrier is dioleoyl phosphatidylethanolamine (DOPE).

22. (Amended) The method of claim 20 wherein the complexing reagent is PLUS reagent.

23. (Amended) The method of claim 20 wherein the complexing reagent is a peptide comprising basic amino acids.

24. (Amended) The method of claim 23 wherein the peptide consists of basic amino acids.

25. (Amended) The method of claim 23 wherein the basic amino acids are selected from lysine and arginine.

26. (Amended) The method of claim 23 wherein the peptide is polylysine or polyornithine.

27. (Amended) The method of claim 19 wherein the polynucleotides are introduced into a cell to achieve an antisense knock-out effect.

28. (Amended) The method of claim 19 wherein the polynucleotides are introduced into a cell for gene therapy.

29. (Amended) The method of claim 19 wherein the polynucleotides are introduced into a cell for genetic immunization (for the generation of antibodies) in whole organisms.

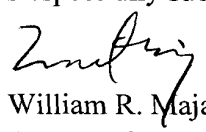
30. (Amended) The method of claim 19 wherein the polynucleotides are introduced into a cell in culture.

31. (Amended) A method of introducing a polynucleotide or anti-infective compound into a prokaryotic or eukaryotic organism for use in anti-infective therapy, the method comprising contacting the organism with the compound of claim 1 and a polynucleotide or anti-infective compound.

REMARKS

This Preliminary Amendment is being made upon entry of International Application No. PCT/GB00/02364 into the U.S. National Phase of prosecution. Claim 32 has been cancelled. Claims 1, 3-31 have been amended to eliminate multiple dependencies and to comply with proper U.S. claim format. Furthermore, attached hereto is a marked-up version of the changes made to the application by the current preliminary amendment. The attached page is captioned, "**Version with markings to show changes made.**"

Respectfully submitted,



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